

Remarks

Upon entry of the foregoing amendment, claims 1-6 and 8-12 are pending in the application, with claim 1 being the sole independent claim. Claim 7 is sought to be cancelled without prejudice to or disclaimer of the subject matter therein. Claims 6, 10, and 11 are withdrawn from consideration by the Examiner.

Claims 1-6 and 8-12 are amended so that the language better conforms with U.S. practice. Support for the amendments can be found, *inter alia*, in originally filed application and claims. Claims 1 and 6 are also amended to set forth the penetrant. Support for the amendments to claims 1 and 6 can be found, *inter alia*, in originally filed claims 1, 6 and 7. These amendments add no new matter and their entry is respectfully requested.

Based on the above amendments and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

I. Rejoinder of Claims 6, 10 and 11

Upon allowance of elected composition claims (claims 1-5, 8, 9 and 12) in Group I, Applicants respectfully request rejoinder of process of making claim (claim 6) in Group II, and method of use claims (claims 10 and 11) in Group III to the elected invention.

II. Rejection under 35 U.S.C. § 102(b)

Claim 1 is rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Turberg *et al.* (US 2005/0214336 A1, Int'l Appl. Pub. No. WO 2003/086075) ("Turberg"). Applicants respectfully traverse the rejection.

According to the Examiner,

The formulation comprising a compound of formula (I') as instantly claimed previously was disclosed by Turberg *et al.* wherein penetrant agents, vegetable oils, surfactants including nonionic ones, and optional additives including antioxidants and colorants are included. . . .

As all of the features and limitations of the instant claims previously were taught, the composition as claimed was anticipated by the teachings of Turberg *et al.* and therefore lacks patentability.

(Office Action, pages 3-4) (internal citations omitted). Applicants respectfully disagree with the Examiner's conclusion.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 361 (Fed. Cir. 1987)).

Present claim 1 is directed to an oil-based suspension concentrate composition comprising a compound of formula (I'), and among other ingredients, a specific penetrant of formula (Id).

Turberg discloses the use of phenylketoenol derivatives of formula (I) as the medicaments for controlling parasites in animals. (Turberg, paras. 0005 and 0030.)

Turberg also generally discloses formulations containing phenylketenol derivatives of formula (I), including suspension formulations containing "a carrier liquid, if appropriate using further auxiliaries such as wetting agents, colorants, absorption accelerators, preservatives, antioxidants or UV stabilizers." (Turberg, para. 0203.) Turberg further generally discloses "pour-on/spot-on" formulations, which may contain adsorption accelerators. (Turberg, para. 0186.) Examples of absorption accelerators are "DMSO, spreading oils such as isopropyl myristate, dipropylene glycol pelargonate, silicone oils, fatty acid esters, triglycerides, fatty alcohols." (Turberg, para. 0192.) None of the absorption accelerators listed in Turberg meet the definition of the penetrant of formula (Id) as recited in the present claim 1.

Thus, for at least this reason, Turberg fails to disclose each and every limitation of claim 1, and cannot anticipate this claim. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection.

III. Rejections under 35 U.S.C. § 103(a)

A. Claims 2-5, 9 and 12

Claims 2-5, 9 and 12 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Turberg. Applicants respectfully traverse the rejection.

The Examiner has stated:

As to claims 2-5, each of the named substituents of formula (I') as defined in claim 1, were taught by Turberg *et al.* For example and as to claim 5, the most limited of these claims, the identities of "V" and "A and B together" previously were defined by Turberg *et al.*

Turberg *et al.* does not limit the disclosure to one combining these specific variables as in formula (I').

As to claim 9, Turberg *et al.* disclose an active agent presence of preferably 1.0-40% by weight, where the instant claim limits this component to an amount between 5 and 30% by weight.

Turberg *et al.* do not quantitatively limit each of the additional components in the composition.

* * *

Therefore, since an overlapping range of analogous active agent (represented by formula (I')) presence had been taught, one of ordinary skill in the art. . . would have been motivated to implement this active agent in a similar quantity such as that in instant claim 9 and reasonably would have expected continued success from this implementation.

As to claim 12, Turberg *et al.* teach adjuvant components serving as extenders and/or surface-active reagents.

Where each of these components was disclosed by the prior art of Turberg *et al.*, one of ordinary skill in the art. . . would have been motivated to look to the teaching of Turberg *et al.*, especially since the prior art discloses these compositions for the systemic and nonsystemic control of parasites in animals using the exact same phenylketoenol derivatives as instantly claimed. Further, in order to optimize an analogous composition for an analogous function, one of ordinary skill in the art. . . would have been motivated to perform routine optimization procedures, with respect to the variable derivatives of the core molecule of Formula (I') and with respect to the concentration of the formulation components. . . .

(Office Action, pages 5 -7) (internal citations omitted). Applicants respectfully disagree with the Examiner's conclusion.

As discussed *supra*, Turberg generally discloses suspension formulations containing phenylketoenol derivatives of formula (I), a carrier liquid, if appropriate, further auxiliaries such as wetting agents, colorants, absorption accelerators, preservatives, antioxidants or UV stabilizers, for parasites control in animals.

The present claims 2-5, 9 and 12 are directed to an oil-based suspension concentrate composition comprising a compound of formula (I'), and among other

ingredients, a specific penetrant of formula (Id). As discussed above, Turberg does not disclose the specific penetrant of formula (Id) as required by each of the present claims 2-5, 9 and 12. To establish *prima facie* obviousness of a claimed invention, all claim limitations must be considered (*See* MPEP 2143.03). Turberg does not teach to use alkanol alkoxylates in the formulation of compound of formula (I'). In addition, Turberg does not teach to use alkanol alkoxylates as penetration enhancer in plants. Hence, for at least these reasons, each of the present claims 2-5, 9 and 12 is not *prima facie* case obvious over Turberg.

Furthermore, the present claim 9 further recites the amounts of active compound, penetrant, vegetable oil, surfactant and additive. Turberg only generally discloses that the active compound is present preferably 1.0-40% by weight. Turberg does not disclose, either generally or specifically, the amounts of penetrant, vegetable oil, surfactant and additive, as acknowledged by the Examiner. Yet, the Examiner alleged that "one of ordinary skill in art. . . would have been motivated to perform routine optimization procedures, . . . with respect to the concentration of the formulation components." Applicants respectfully disagree.

The problem to be solved by the present invention is to improve activity of phenyl ketoenol compounds of the formula (I') in insect control on plants by using an alkanol alkoxylate of formula (Id) as a penetration enhancer, and at the same time to improve plant tolerance. (*See* specification, page 4, lines 11-15.) Turberg is directed to the control of parasites in animals and not to the control of insects in plants. As such, Turberg's compositions are not used for an "analogous function" as alleged by the Examiner. Thus, a person of ordinary skill in the art would not have taken Turberg's

teaching into consideration while formulating compounds of the formula (I') with improved penetration properties for agricultural applications. Thus, for at least this additional reason, the present claim 9 is not *prima facie* obviousness over Turberg.

In summary, claims 2-5, 9 and 12 are not *prima facie* obviousness over Turberg. Applicants respectfully request that the rejection be reconsidered and withdrawn.

B. Claims 7 and 8

Claims 7 and 8 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Turberg in view of Hoffarth (U.S. Patent No. 5,705,476) ("Hoffarth"). Applicants respectfully traverse the rejection.

The cancellation of claim 7 renders the rejection of claim 7 moot. With respect to claim 8, Applicants respond as follows.

The Examiner has acknowledged that "Turberg *et al.* do not teach alkanol alkoxylate penetrating agents as components in the parasite control composition." (Office Action, page 7.) However, According to the Examiner:

Hoffarth disclose low-foaming wetting agents consisting of various alkoxylated alcohol mixtures for applications such as formulating crop protection agents, for example. Further, Hoffarth teach various alkoxylate species such as formula (Ia), illustrated in column 8, claim 1. One of ordinary skill in the art. . . would have been motivated to look to the teachings of Hoffarth in order to determine an effective wetting agent or penetrant identity. As to instant claims 7 and 8, the exact alkanol alkoxylate formulas named are included in the range of alkanol alkoxylates previously taught.

Since Hoffarth previously had demonstrated successful wetting agents having the structure of formula (Id) [sic] of the instant claims, one of ordinary skill in the art. . . reasonably would have

expected continued success from implementing these specific wetting agents. It would have been obvious. . . to implement these specific wetting agents in the analogous oil based suspension concentrate as instantly disclosed.

(Office Action, pages 7-8) (internal citation omitted).

The present claim 8 is directed to an oil-based suspension concentrate composition comprising a compound of formula (I'), and among other ingredients, a specific penetrant. As discussed above, Turberg does not disclose or provide a reason to make an oil-based suspension concentrate composition containing the specific penetrant as recited in the present claim 8.

Hoffarth does not cure the deficiency of Turberg. Hoffarth discloses low-foaming wetting agents consisting of a mixture of two or three different alkoxyated alcohols, *i.e.*, components I, II and III, for formulating crop protection agents. (Hoffarth, claim 1 and col. 1, lines 10-16.) Component I further includes a compound of formula (Ia) having the following structure:



wherein R^1 is selected from the group consisting of straight-chain or branched C_4 - C_{20} -alkyl, . . .; and m denotes 1 to 30. (Hoffarth, claim 1.)

Thus, at most, Hoffarth discloses an alkoxyated alcohol of formula (Ia) as a wetting agent for the intended "low-foaming" purpose, which encompasses the specific penetrant of the present claim 8. However, Hoffarth is directed to the improvement of wetting and anti-foaming properties of formulations in general. Hoffarth does not teach to use alkanol alkoxyates as penetration enhancer for compounds of the formula (I') in

plants. A person of ordinary skill in the art would not have combined the teachings of Turberg and Hoffarth because Turberg is directed to compositions/formulations for animal applications, whereas Hoffarth is directed to low-foaming wetting agents for formulating crop protection agents. The Examiner used impermissible hindsight analysis to piece together isolated elements, *i.e.*, Turberg's general suspension formulations and Hoffarth's wetting agent (alkoxylated alcohol of formula (Ia)) with the aid of Applicants' disclosure to arrive at the presently claimed compositions.

Thus, for at least these reasons, claim 8 is not *prima facie* obviousness over Turberg in view of Hoffarth. Applicants respectfully request that the rejection be reconsidered and withdrawn.

Finally, the present specification includes Example I, a presently claimed composition that contains, *inter alia*, a penetrant of formula (I-d-1),¹ and Comparative Examples I and II that contain all the same ingredients as Example I, except for the penetrant. Specifically, Comparative Example I contains a compound of formula $\text{RO}(\text{EO})_8(\text{PO})_4\text{-H}$, wherein R is a C_{12-15} alkyl group, EO is ethylene oxide unit and PO is propylene oxide unit; and Comparative Example II contains a compound $\text{C}_{13}\text{H}_{27}\text{-O}(\text{EO})_{10}\text{-H}$, which is encompassed by Hoffarth's alkoxylated alcohol of formula (Ia). (*See* specification, pages 18-20.) As shown in Tables 1-4 of the specification, Example I causes much less damage to the crops tested (better crop tolerance), as compared to Comparative Examples I and II. Furthermore, as shown in Table 5 of the

¹ A penetrant of formula (I-d-1) is a penetrant of formula (Id), wherein t stands for average value of 10.5 and u stands for average value of 8.4. (*See* specification, page 10, lines 14-17.)

specification, Example I demonstrates much higher insecticidal efficacies against *Aphis gossypii* and *Myzus persicae*, as compared to Comparative Examples I and II.

Thus, even assuming that a *prima facie* case of obviousness had been established, which it has not, the evidence of superior crop tolerance and efficacy of the claimed compositions containing a specific penetrant of formula (Id), as compared to the comparative reference compositions, rebuts any *prima facie* case of obviousness. Applicants respectfully request that the rejection be reconsidered and withdrawn.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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